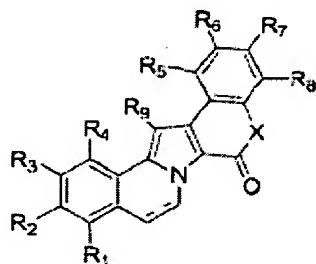


# ABSTRACT

New lamellarins are provided of the general formula III wherein X is selected from the group consisting of N, O and S; wherein  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$  and  $R_9$  are each independently selected from the group consisting of H, OH, OR', SH, SR', SO<sub>2</sub>R', NHR', N(R')<sub>2</sub>, N=R', NHCOR', N(COR')<sub>2</sub>, NHSO<sub>2</sub>R', NO<sub>2</sub>, PO(R')<sub>2</sub>, PO<sub>2</sub>R', C(=O)H, C(=O)R', CO<sub>2</sub>H, CO<sub>2</sub>R', OPO(R')<sub>2</sub>, OPO<sub>2</sub>R', OC(=O)H, OC(=O)R', N=C(R')<sub>2</sub>, substituted or unsubstituted C<sub>1</sub>-C<sub>12</sub> alkyl, substituted or unsubstituted C<sub>1</sub>-C<sub>12</sub> haloalkyl, substituted or unsubstituted C<sub>2</sub>-C<sub>12</sub> alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>12</sub> alkynyl, substituted or unsubstituted aryl, substituted or unsubstituted aralkyl and substituted or unsubstituted heteroaromatic; wherein each of the R' groups is independently selected from the group consisting of H, OH, NO<sub>2</sub>, NH<sub>2</sub>, SH, CN, halogen, =O, C(=O)H, C(=O)CH<sub>3</sub>, CO<sub>2</sub>H, C(=O)R', substituted or unsubstituted C<sub>1</sub>-C<sub>18</sub> alkyl, substituted or unsubstituted C<sub>2</sub>-C<sub>18</sub> alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>18</sub> alkynyl, substituted or unsubstituted aryl, substituted or unsubstituted C<sub>1</sub>-C<sub>18</sub> alkoxy, substituted or unsubstituted C<sub>1</sub>-C<sub>18</sub> aminoalkyl, substituted or unsubstituted C<sub>1</sub>-C<sub>18</sub> aminoacid, substituted or unsubstituted C<sub>1</sub>-C<sub>18</sub> thioalkyl, substituted or unsubstituted C<sub>1</sub>-C<sub>18</sub> alkylsulfinyl, substituted or unsubstituted C<sub>1</sub>-C<sub>18</sub> alkylsulfonyl; wherein the pairs of groups  $R_1$  and  $R_2$ ,  $R_2$  and  $R_3$ ,  $R_3$  and  $R_4$ ,  $R_3$  and  $R_9$ ,  $R_4$  and  $R_9$ ,  $R_9$  and  $R_5$ ,  $R_9$  and  $R_6$ , or  $R_6$  and  $R_7$ ,  $R_7$  and  $R_8$  may be joined into a carbocyclic or heterocyclic ring system; and the dotted line represents an single or double bond; or a pharmaceutically acceptable salt, derivative, prodrug or stereoisomer thereof.



(III)